What is claimed is:

1. A removable protective coating comprising a thermoplastic film that includes silicone containing microcapsules attached to at least one side of the thermoplastic film.

2. The removable protective coating of claim 1 wherein the silicone containing microcapsules include a two-component silicone having microcapsules containing silicone resin and microcapsules containing a curing or hardening agent.

3. The removable protective coating of claim 1 wherein the silicone containing microcapsules include a one-component silicone.

4. The removable protective coating of claim 1 wherein the microcapsules are formed of a thermoplastic or wax material effective for releasing their contents when heated to a temperature of at least about 80°C.

5. The removable protective coating of claim 1 wherein the thermoplastic film is formed from a thermoplastic resin selected from the group consisting of polypropylene, polyethylene, polyvinyl chloride, styrene, acrylonitrile, acrylonitrile-styrene), acrylonitrile-butadiene-styrene, and mixtures thereof.

6. The removable protective coating of claim 1 wherein the protective coating includes an adhesive laminate effective for providing adhesion between the thermoplastic film and the silicone containing microcapsules.

7. The removable protective coating of claim 6 wherein the adhesive laminate is a layer between the thermoplastic film and the silicone containing microcapsules.

8. The removable protective coating of claim 6 where the silicone containing microcapsules are coated with the adhesive laminate.

9. The removable protective coating of claim 1 wherein the protective coating has a thickness of about 0.003 to about 0.01 inches.

10. A removable protective coating comprising a thermoplastic film, an adhesive laminate and microencapsulated silicone contacting the adhesive laminate.

11. The removable protective coating of claim 10 wherein the microencapsulated silicone is a two-component silicone having microcapsules containing silicone resin and microcapsules containing a curing or hardening agent.

12. The removable protective coating of claim 10 wherein the microencapsulated silicone is a one-component silicone.

13. The removable protective coating of claim 10 wherein the microencapsulated silicone includes microcapsules formed of a thermoplastic or wax material effective for releasing their contents when heated to a temperature of at least about 80°C.

14. The removable protective coating of claim 10 wherein the thermoplastic film is formed from a thermoplastic resin selected from the group consisting of polypropylene, polyethylene, polyvinyl chloride, styrene, acrylonitrile, acrylonitrile-styrene), acrylonitrile-butadiene-styrene, and mixtures thereof.

15. The removable protective coating of claim 10 wherein the adhesive laminate is a layer between the thermoplastic film and the microencapsulated silicone.

16. The removable protective coating of claim 10 where the microencapsulated silicone includes microcapsules that are coated with the adhesive laminate.

17. The removable protective coating of claim 10 wherein the protective coating has a thickness of about 0.003 to about 0.01 inches.

18. A method for applying a protective coating to a component, the method comprising:

contacting the component with a thermoplastic film that includes silicone containing microcapsules on a side of the film contacting the component; and

heating the film and drawing the film onto the component, wherein the heating is effective for releasing silicone from the silicone containing microcapsules to form a silicone coating.

19. The method of claim 18 wherein the protective coating is brought into contact with the component and drawn onto the component through use of a vacuum.

20. The method of claim 18 wherein the protective coating is heated to at temperature of at least about 80°C after contacting the component.

21. The method of claim 18 wherein the protective coating is cured by exposure to UV radiation.

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